

The South Star I and II Cogeneration Project facilities will be designed for high reliability and efficiency. A detailed project description is provided in Section 2.0. The engineering standards and requirements are provided in the Engineering Appendix, Appendices I-1 through I-8. Details of the transmission system design, including information on safety and reliability of the transmission system, are provided in Section 6.0 and its associated appendix, Appendix A.

A description of the cogeneration facility, design and operation can be found in Section 2.2. South Star I and II Projects Description, Design and Operation. Design and engineering information is located in several places within this AFC as follows:

Power Generation	Section 2.2.3 Combustion Turbines and Heat Recovery Steam Generators. Additional information is also contained in Appendix I-3.
Heat Dissipation System	The South Star I and II Projects do not include a steam turbine or require a cooling tower for heat dissipation.
Cooling Water Supply System	The South Star I and II Projects do not utilize a cooling tower.
Atmospheric Emission Control System	Section 2.2.3.1 Combustion Turbine Generators, Section 2.2.3.2 Heat Recovery Steam Generators, Section 2.2.9 Emission Control and Monitoring and Section 8.1 Air Quality
Waste Disposal System	Section 2.2.7 Waste Management and Section 8.13 Waste Management, Appendix I-3
Noise Abatement	Section 2.2.3.1 Combustion Turbine Generators, Section 8.5 Noise and Appendix I-3
Substations/Transformer Systems	Section 2.2.4 Major Electrical Systems and Subsystems, Section 6.0 Electric Transmission, and Appendix I-4 Electrical Engineering Design Criteria
Transmission System Design	Section 6.0 Electric Transmission and Appendix A
Reliability	Section 2.3.4 Facility Reliability
Efficiency	Appendix I-8 Heat Balance and Efficiency Calculations

Information regarding design measures to ensure a safe facility operation are contained in Section 2.3. Applicable engineering LORS are summarized in the Appendix I. Throughout this AFC and Appendix I, references to the Uniform Building Code should be understood to be inclusive of the corresponding provisions of the California Building Code.

A geotechnical investigation of the South Star I and II Project sites was conducted, including foundation core borings and can be found in Appendix I-7.

Additional engineering information is contained in the following engineering appendix sections:

Foundation and Civil Engineering	Appendix I-1 Foundation and Civil Engineering Design Criteria
Structural Engineering	Appendix I-2 Structural Engineering Design Criteria
System Controls	Appendix I-5 Control Engineering Design Criteria
Equipment Summary	Appendix I-6 Major Equipment List

In addition, the South Star I and II Projects will comply with applicable laws, ordinances, regulations, and standards (LORS). A summary of the applicable LORS is provided in each environmental subsection within Section 8.0.

Full descriptions of site preparation and the cogeneration plant foundation are included in Appendix I-1, Foundations and Civil Engineering Design Criteria, and Appendix I-2, Structural Engineering Design Criteria. Appendix I-2 also contains drawings of typical foundations for major structures and equipment, and typical loading conditions. Appendix I-6 includes the Major Equipment List.

Information on power generation, combustion turbine generators, and heat recovery steam generators, are provided in Appendix I-3, Mechanical Engineering Design Criteria.

Section 6.0 provides detailed information on the Electric Transmission system; Appendix I-4 includes Electrical Engineering Design Criteria; and Appendix I-5 includes Control Engineering Design Criteria.

A geotechnical assessment of the South Star I and II Project sites, including foundation core borings, is included in Appendix I-7, Geotechnical Investigation Summary.

Involved Agency:

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